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| APPLICATION NO.      | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/581,540           | 10/03/2006  | Mark Raymond Gibberd | 76411JPW/CH         | 4975             |
| 23432                | 7590        | 10/14/2010           |                     |                  |
| COOPER & DUNHAM, LLP |             |                      | EXAMINER            |                  |
| 30 Rockefeller Plaza |             |                      | YL, STELLA KIM      |                  |
| 20th Floor           |             |                      |                     |                  |
| NEW YORK, NY 10112   |             |                      | ART UNIT            | PAPER NUMBER     |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/581,540

**Applicant(s)**

GIBBERD ET AL.

**Examiner**

Stella Yi

**Art Unit**

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 July 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 95-107 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 95-107 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SI/202)
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date See Continuation Sheet

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :07/17/2009, 05/30/2008, 10/03/2006.

**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election without traverse of Group I, Claims 95-107 in the reply filed on July 26, 2010 is acknowledged.
2. Claims 108-132 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claims. Election was made **without** traverse in the reply filed on July 26, 2010.

***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 95-99, 102, and 105 are rejected under 35 U.S.C. 102(b) as being anticipated by SHIH et al. (WO 00/76862).

Regarding Claims 95, 96, 102, and 105, SHIH et al. discloses a process for the manufacture of a packaging material, the process comprises coating a moving paper web with single or multi-layer polymer melt through an extrusion coating die (Page 6, lines 8-10). The web is coated with a tie layer (12) of molten polyolefin and an outer layer (14) of molten polyolefin is applied to the said tie layer (Page 12, lines 18-25 and Figure 3). The paper/polymer melt laminate is then subsequently passed through a nip roll/chill roll in order for it to cool down before it is wound up in the winding station (Page 6, lines 11-13). In the case of multi-layer co-extrusion coating, various polymer melts from different extruders flow through the heated pipes to a feed block. Each polymer

melt is converted into a layered form inside the feed block. Various molten polymer layers are then combined at the exit of the feed block before it enters into the extrusion coating die (Page 6, lines 20-25). The said paper web or substrate is a water-absorbent layer (Page 4, lines 26-27). Because SHIH et al. teach the same materials and performs the same claimed process steps, the tie layer of SHIH et al. inherently partially impregnates the said water-absorbent layer. Instant specification discloses that it is pressure that makes the layer impregnate and SHIH et al.'s said nip roll inherently exerts pressure.

Regarding Claim 97, SHIH et al. discloses said polyolefin is selected from the group consisting of low or high density polyethylene and polypropylene (Page 15, lines 6-9).

Regarding Claim 98, SHIH et al. discloses that an adhesive such as a primer or glue is applied on the two adjacent tie and outer layers (Page 7, lines 1-15).

Regarding Claim 99, SHIH et al. discloses that the said tie layer (12) and the outer layer (14) as depicted in Figure 3 can be combined as one tie layer (Page 15, lines 21-23).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 100, 101, 103, 104, 106, and 107 are rejected under 35 U.S.C. 103(a) as being unpatentable over SHIH et al. (WO 00/76862) as applied to claims 95-99, 102, and 105 above.

The teachings of SHIH et al. are applied as described above for 95-99, 102, and 105 claims.

Regarding Claims 100 and 101, SHIH et al. is silent to the thickness of the tie layer and the outer layer. However, it would have been a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the thickness of the claimed tie layer and outer layer was significant.

Regarding Claim 103, SHIH et al. discloses that the said laminate is passed through a nip roll which inherently exerts pressure but is silent to the pressure amount. However, it would have been a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the amount of pressure was significant.

Regarding Claim 104, SHIH et al. is silent to the temperatures of the said tie layer and outer layer. However, the melting point of the high density polyethylene ranges from 120 to 130°C. Therefore, it would have been obvious to one of ordinary skill in the art to have melted the polyethylene of the tie layer and outer layer at the claimed range to ensure it be in the molten stage during the extruding or application process.

Regarding Claim 106, SHIH et al. discloses bonding the polymer/nanoclay composite layer (6) to the said paper substrate (Page 12, line 20) wherein the polymer/nanoclay composite layer is water vapour-permeable (Page 9, lines 30-33).

Regarding Claim 107, SHIH et al. discloses loading the said polymer/nanoclay composite layer onto the inner layer at a level from 0.5 to 7 weight percent (Page 11, lines 12-17) but is silent to it covering over less than 5% of the surface area of the inner layer. However, it would have been a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that covering less than 5% of the surface area of the inner layer was significant.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stella Yi whose telephone number is 571-270-5123. The examiner can normally be reached on Monday - Thursday from 8:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571-272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SY

/Jeff Wollschlager/  
Primary Examiner, Art Unit 1742